```
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS               YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS               YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS               YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                  YYY   YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                  YYY   YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                  YYY   YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS            YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS            YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS            YYY
UUU         UUU  EEE                    TTT        PPP                             SSS        YYY
UUU         UUU  EEE                    TTT        PPP                             SSS        YYY
UUU         UUU  EEE                    TTT        PPP                             SSS        YYY
UUU         UUU  EEE                    TTT        PPP                             SSS        YYY
UUU         UUU  EEE                    TTT        PPP                             SSS        YYY
UUU         UUU  EEE                    TTT        PPP                             SSS        YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS            YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS            YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS            YYY
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```
**FILE**ID**SATSSS60                                    F  8

  SSSSSSSS    AAAAAA    TTTTTTTTTT    SSSSSSSS    SSSSSSSS    SSSSSSSS    666666      000000
  SSSSSSSS    AAAAAA    TTTTTTTTTT    SSSSSSSS    SSSSSSSS    SSSSSSSS    666666      000000
SS          AA      AA      TT      SS          SS          SS          66          00      00
SS          AA      AA      TT      SS          SS          SS          66          00      00
SS          AA      AA      TT      SS          SS          SS          66          00    0000
SS          AA      AA      TT      SS          SS          SS          66          00    0000
  SSSSSS    AA      AA      TT        SSSSSS      SSSSSS      SSSSSS    66666666    00  00  00
  SSSSSS    AA      AA      TT        SSSSSS      SSSSSS      SSSSSS    66666666    00  00  00
        SS  AAAAAAAAAA      TT              SS          SS          SS  66      66  0000    00
        SS  AAAAAAAAAA      TT              SS          SS          SS  66      66  0000    00
        SS  AA      AA      TT              SS          SS          SS  66      66  00      00
        SS  AA      AA      TT              SS          SS          SS  66      66  00      00      ....
SSSSSSSS    AA      AA      TT      SSSSSSSS    SSSSSSSS    SSSSSSSS      666666      000000        ....
SSSSSSSS    AA      AA      TT      SSSSSSSS    SSSSSSSS    SSSSSSSS      666666      000000        ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

Table of contents

```
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    (1)       405       VERIFY
    (1)       589       VFY_CLEANUP
```

```
0000            .TITLE  SATSSS60 SATS SYST SRV TESTS  TIME SERVS (SUCC S.C.)
0000            .IDENT  'V04-000'
0000
0000    ;
0000    ;****************************************************************************
0000    ;*                                                                          *
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0000    ;*                                                                          *
0000    ;*                                                                          *
0000    ;****************************************************************************
0000    ;
0000
0000    ;++
0000    ; FACILITY:      SYSTST (SATS SYSTEM SERVICE TESTS)
0000    ;
0000    ; ABSTRACT:
0000    ;
0000    ;               THIS MODULE CONTAINS SUBROUTINES WHICH, WHEN LINKED
0000    ; WITH SUCCOMMON.OBJ, FORM TEST MODULE SATSSS60 TO TEST SUCCESSFUL
0000    ; OPERATION OF THE TIME SYSTEM SERVICES. EACH SERVICE IS INVOKED
0000    ; UNDER VARIOUS INPUT CONDITIONS WITH VARYING INPUT PARAMETERS. ONLY
0000    ; SUCCESSFUL STATUS CODES ARE EXPECTED IN THIS TEST MODULE.  CORRECT
0000    ; OPERATION OF THE SERVICE FOR EACH OF ITS ISSUANCES IS VERIFIED BY
0000    ; CHECKING FOR AN SS$_NORMAL STATUS CODE, EXPECTED RETURN ARGUMENTS
0000    ; AND EXPECTED FUNCTIONALITY PERFORMED.
0000    ;
0000    ; ENVIRONMENT:  USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000    ;               DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000    ;
0000    ; AUTHOR: THOMAS L. CAFARELLA,           CREATION DATE: JUN, 1978
0000    ;
0000    ; MODIFIED BY:
0000    ;
0000    ;       , : VERSION
0000    ; 01    -
0000    ;--
```

```
                     0000     54         .SBTTL  DECLARATIONS
                     0000     55 ;
                     0000     56 ; INCLUDE FILES:
                     0000     57 ;
                     0000     58         $PRVDEF                         ; PRIVILEGE BIT DEFINITIONS
                     0000     59         $PHDDEF                         ; PROCESS HEADER OFFSETS
                     0000     60 ;
                     0000     61 ; MACROS:
                     0000     62 ;
                     0000     63 ;
                     0000     64 ; EQUATED SYMBOLS:
                     0000     65 ;
          00000001   0000     66 SHORT_ASC       = 1             ; INDICATOR FOR SHORT $ASCTIM OUTPUT
          00000000   0000     67 LONG_ASC        = 0             ; INDICATOR FOR LONG $ASCTIM OUTPUT
                     0000     68 ;
                     0000     69 ; OWN STORAGE:
                     0000     70 ;
```

```
                                   00000000    72               .PSECT  RODATA,RD,NOWRT,NOEXE,LONG
                                       0000    73 TEST_MOD_NAME:: STRING  C,<SATSSS60>      ; TEST MODULE NAME
                                       0009    74 TEST_MOD_NAME_D: STRING I,<SATSSS60>      ; TEST MODULE NAME DESCRIPTOR
                                       0019    75 MSG1_INP_CTL:   STRING  I,<  SSTIM!4ZW: CONDITIONS:>
                                       0039    76                                           ; FAO CTL STRING FOR MSG1 IN SUCCOMMON.MAR
                                       0039    77 MSG3_ERR_CTL::  STRING  I,< *SSTIM!4ZW: !AS>
                                       0051    78                                           ; FAO CTL STRING FOR MSG3 IN SUCCOMMON.MAR
                                       0051    79 ;
                                       0051    80 ; TABLE OF TIMBUF STRINGS FOR COND1 TABLE
                                       0051    81 ;
20 33 37 39 31 2D 43 45 44 2D 35 32    0051    82 C1_ELT1:          .ASCII  \25-DEC-1973 21:46:00.05\
   35 30 2E 30 30 3A 36 34 3A 31 32    005D
20 31 30 30 32 2D 47 55 41 2D 31 33    0068    83 C1_ELT2:          .ASCII  \31-AUG-2001  01:32:29.94\
34 39 2E 39 32 3A 32 33 3A 31 30 20    0074
3A 38 31 20 20 20 33 35 37 35 20 20    0080    84 C1_ELT3:          .ASCII  \  5753   18:56:01.13 \
         20 33 31 2E 31 30 3A 36 35    008C
                              2D 2D    0095    85 C1_ELT4:          .ASCII  \--\
                                       0097    86 ;
                                       0097    87 STD_TIMADR_BTM:                                   ; TABLE OF STANDARD TIMADR ARGUMENT
                                       0097    88                                                   ; ... VALUES OUTPUT BY $BINTIM
                                       0097    89 ;
                           A2C67D20    0097    90                   .LONG      ^XA2C67D20         ; LOW-ORDER LONGWORD ...  1ST COND 1 ELEMENT
                           00810CAC    009B    91                   .LONG      ^X00810CAC         ; HIGH-ORDER LONGWORD ... 1ST COND 1 ELEMENT
                           4347A340    009F    92                   .LONG      ^X4347A340         ; LOW-ORDER LONGWORD ...  2ND COND 1 ELEMENT
                           00A01545    00A3    93                   .LONG      ^X00A01545         ; HIGH-ORDER LONGWORD ... 2ND COND 1 ELEMENT
                           2A513360    00A7    94                   .LONG      ^X2A513360         ; LOW-ORDER LONGWORD ...  3RD COND 1 ELEMENT
                           FFEE56A7    00AB    95                   .LONG      ^XFFEE56A7         ; HIGH-ORDER LONGWORD ... 3RD COND 1 ELEMENT
                                       00AF    96 ;
                                       00AF    97 STD_TIMBUF_ATMS:                                  ; TABLE OF STANDARD TIMBUF ARGUMENT
                                       00AF    98                                                   ; ... VALUES OUTPUT BY $ASCTIM (SHORT)
                                       00AF    99                                                   ; NOTE -- WILL SKIP CHECKING HUNDREDTHS
                                       00AF   100                                                   ; ... OF A SECOND DUE TO ROUNDING ERROR
                                       00AF   101 ;
                  000000EB'0000000A    00AF   102                   .LONG   10,S_T_A_DATA+12 ; STRING DESCRIPTOR FOR 1ST COND 1 ELEMENT
                  00000101'0000000A    00B7   103                   .LONG   10,S_T_A_DATA+34 ; STRING DESCRIPTOR FOR 2ND COND 1 ELEMENT
                  00000110'0000000A    00BF   104                   .LONG   10,S_T_A_DATA+49 ; STRING DESCRIPTOR FOR 3RD COND 1 ELEMENT
                                       00C7   105 ;
                                       00C7   106 STD_TIMBUF_ATML:                                  ; TABLE OF STANDARD TIMBUF ARGUMENT
                                       00C7   107                                                   ; ... VALUES OUTPUT BY $ASCTIM (LONG)
                                       00C7   108                                                   ; NOTE -- WILL SKIP CHECKING HUNDREDTHS
                                       00C7   109                                                   ; ... OF A SECOND DUE TO ROUNDING ERROR
                                       00C7   110 ;
                  000000DF'00000016    00C7   111                   .LONG   22,S_T_A_DATA    ; STRING DESCRIPTOR FOR 1ST COND 1 ELEMENT
                  000000F5'00000016    00CF   112                   .LONG   22,S_T_A_DATA+22 ; STRING DESCRIPTOR FOR 2ND COND 1 ELEMENT
                  0000010B'0000000F    00D7   113                   .LONG   15,S_T_A_DATA+44 ; STRING DESCRIPTOR FOR 3RD COND 1 ELEMENT
                                       00DF   114 ;
                                       00DF   115 S_T_A_DATA:                                       ; TABLE OF STRINGS FOR THE STD_TIMBUF_ATM
                                       00DF   116                                                   ; ... DESCRIPTORS ABOVE
                                       00DF   117 ;
20 33 37 39 31 2D 43 45 44 2D 35 32    00DF   118                   .ASCII  \25-DEC-1973 21:46:00.0\
      30 2E 30 30 3A 36 34 3A 31 32    00EB
20 31 30 30 32 2D 47 55 41 2D 31 33    00F5   119                   .ASCII  \31-AUG-2001 01:32:29.9\
      39 2E 39 32 3A 32 33 3A 31 30    0101
30 3A 36 35 3A 38 31 20 33 35 37 35    010B   120                   .ASCII  \5753 18:56:01.1\
                           31 2E 31    0117
                                       011A   121 ;
                                       011A   122 STD_TIMBUF_NMT:                                   ; TABLE OF ADDRESSES FOR STANDARD TIMBUF
```

```
                                    011A    123                                    ; ... ARGUMENT VALUES OUTPUT BY $NUMTIM
                                    011A    124 ;
                          00000126' 011A    125                .ADDRESS S_T_N_DATA    ; ADDRESS OF BUFFER FOR 1ST COND 1 ELEMENT
                          00000134' 011E    126                .ADDRESS S_T_N_DATA+14 ; ADDRESS OF BUFFER FOR 2ND COND 1 ELEMENT
                          00000142' 0122    127                .ADDRESS S_T_N_DATA+28 ; ADDRESS OF BUFFER FOR 3RD COND 1 ELEMENT
                                    0126    128 ;
                                    0126    129 S_T_N_DATA:                           ; TABLE OF 7-WORD BUFFERS POINTED TO BY
                                    0126    130                                       ; ... THE STD_TIMBUF_NMT ADDRESSES ABOVE
                                    0126    131 ;
0005 0000 002E 0015 0019 000C 07B5  0126    132                .WORD   1973,12,25,21,46,0,5
005E 001D 0020 0001 001F 0008 07D1  0134    133                .WORD   2001,8,31,1,32,29,94
000D 0001 0038 0012 1679 0000 0000  0142    134                .WORD   0,0,5753,18,56,1,13
```

```
          00000000     136              .PSECT  RWDATA,RD,WRT,NOEXE,LONG
 00000008  0000        137 PRIVMASK:        .BLKQ   1                        ; ADDR OF PRIVILEGE MASK (IN PHD)
 00000010  0008        138 TIMADR_BTM:      .BLKQ   1                        ; TIMADR ARGUMENT FOR $BINTIM
           0010        139 TIMBUF_ATM:      STRING  0,24                     ; TIMBUF ARGUMENT FOR $ASCTIM
 00000032  0030        140 TIMLEN_ATM:      .BLKW   1                        ; TIMLEN ARGUMENT FOR $ASCTIM
 00000040  0032        141 TIMBUF_NMT:      .BLKW   7                        ; TIMBUF ARGUMENT FOR $NUMTIM
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```
                          0040   143       .SBTTL  CONDITION TABLES
                          0040   144 ;
                          0040   145 ;     ***** CONDITION TABLES FOR TIME SYSTEM SERVICES *****
                          0040   146 ;
                          0040   147       COND    1,DESC,<TIMBUF>,-
                          0040   148                 <DATE IN PAST (INPUT TO $BINTIM)>,-
                          0040   149                 <DATE IN FUTURE (INPUT TO $BINTIM)>,-
                          0040   150                 <DELTA TIME INTERVAL (INPUT TO $BINTIM)>,-
                          0040   151                 <CURRENT TIME (INPUT TO $BINTIM)>,-
                          0040   152                 <CURRENT TIME (FROM $GETTIM)>,-
                          0040   153
                00000017  0101   154                 .LONG           23       ; LENGTH OF STRING
                00000051' 0105   155                 .ADDRESS        C1_ELT1  ; ADDRESS OF STRING
                00000018  0109   156                 .LONG           24       ; LENGTH OF STRING
                00000068' 010D   157                 .ADDRESS        C1_ELT2  ; ADDRESS OF STRING
                00000015  0111   158                 .LONG           21       ; LENGTH OF STRING
                00000080' 0115   159                 .ADDRESS        C1_ELT3  ; ADDRESS OF STRING
                00000002  0119   160                 .LONG           2        ; LENGTH OF STRING
                00000095' 011D   161                 .ADDRESS        C1_ELT4  ; ADDRESS OF STRING
       00000000 00000000  0121   162                 .LONG           0,0      ; NO DESCRIPTOR FOR THIS TABLE ELEMENT
                          0129   163 ;
                          0129   164       COND    2,LONG,<CVTFLG>,-
                          0129   165                 <SHORT FORM OF $ASCTIM OUTPUT>,-
                          0129   166                 <LONG FORM OF $ASCTIM OUTPUT>,-
                          0129   167
                00000001  0172   168                 .LONG           SHORT_ASC ; THE SHORT AND ...
                00000000  0176   169                 .LONG           LONG_ASC  ; ... LONG OF IT
                          017A   170 ;
                          017A   171       COND    3,NULL
                          017B   172
                          017B   173       COND    4,NULL
                          017C   174
                          017C   175       COND    5,NULL
                          017D   176
                00000000         177       .PSECT  SATSSS60,RD,WRT,EXE
```

```
                                 0000   179         .SBTTL  TM_SETUP, TM_CLEANUP
                                 0000   180 ;++
                                 0000   181 ; FUNCTIONAL DESCRIPTION:
                                 0000   182 ;
                                 0000   183 ;               TM_SETUP AND TM_CLEANUP ARE CALLED TO PERFORM
                                 0000   184 ; REQUIRED HOUSEKEEPING AT THE BEGINNING AND END, RESPECTIVELY, OF
                                 0000   185 ; TEST MODULE EXECUTION.
                                 0000   186 ;
                                 0000   187 ; CALLING SEQUENCE:
                                 0000   188 ;
                                 0000   189 ;       BSBW TM_SETUP   BSBW TM_CLEANUP
                                 0000   190 ;
                                 0000   191 ; INPUT PARAMETERS:
                                 0000   192 ;
                                 0000   193 ;       NONE
                                 0000   194 ;
                                 0000   195 ; IMPLICIT INPUTS:
                                 0000   196 ;
                                 0000   197 ;       NONE
                                 0000   198 ;
                                 0000   199 ; OUTPUT PARAMETERS:
                                 0000   200 ;
                                 0000   201 ;       NONE
                                 0000   202 ;
                                 0000   203 ; IMPLICIT OUTPUTS:
                                 0000   204 ;
                                 0000   205 ;       TM_SETUP:  COND TABLE INDEX REGISTERS (R2,3,4,5,6) CLEARED;
                                 0000   206 ;                  ALL PRIVILEGES ACQUIRED.
                                 0000   207 ;
                                 0000   208 ; COMPLETION CODES:
                                 0000   209 ;
                                 0000   210 ;       EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
                                 0000   211 ;
                                 0000   212 ; SIDE EFFECTS:
                                 0000   213 ;
                                 0000   214 ;       SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
                                 0000   215 ;       (VIA RSB) IF ERROR ENCOUNTERED.
                                 0000   216 ;
                                 0000   217 ;--
                                 0000   218
                                 0000   219
                                 0000   220
                                 0000   221 TM_SETUP::
                       52   D4   0000   222         CLRL    R2                      ; INITIALIZE
                       53   D4   0002   223         CLRL    R3                      ; .. CONDITION
                       54   D4   0004   224         CLRL    R4                      ; .... TABLE
                       55   D4   0006   225         CLRL    R5                      ; ...... INDEX
                       56   D4   0008   226         CLRL    R6                      ; ........ REGISTERS
                    FFF3'   30   000A   227         BSBW    MOD_MSG_PRINT           ; PRINT TEST MODULE BEGIN MSG
00000000'EF   00000000'EF   DE   000D   228         MOVAL   TEST_MOD_SUCC,TMD_ADDR  ; ASSUME END MSG WILL SHOW SUCCESS
   03    00   00000000'8F   F0   0018   229         INSV    #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
              00000000'EF        0020
                                 0025   230         MODE    TO,5$,KRNL              ; KERNEL MODE TO ACCESS PHD
      59   00000000'9F      D0   0048   231         MOVL    @#CTL$GL_PHD,R9         ; GET PROCESS HEADER ADDRESS
   00000000'EF    69        DE   004F   232         MOVAL   PHD$Q_PRIVMSK(R9),PRIVMASK ; GET PRIV MASK ADDRESS
                                 0056   233         MODE    FROM,5$ ; BACK TO USER MODE
                                 0057   234         PRIV    ADD,ALL                 ; GET ALL PRIVILEGES
```

```
                                                  B  9
SATSSS60                 SATS SYST SRV TESTS  TIME SERVS (SUCC S. 16-SEP-1984 00:59:14  VAX/VMS Macro V04-00          Page   8
V04-000                  TM_SETUP, TM_CLEANUP                      5-SEP-1984 04:32:43  [UETPSY.SRC]SATSSS60.MAR;1         (1)

                0077    235             $SETPRN_S TEST_MOD_NAME_D           ; SET PROCESS NAME
                0084    236             SS_CHECK  NORMAL                    ; CHECK STATUS CODE RETURNED FROM SETPRN
            05  00B2    237             RSB                                 ; RETURN TO MAIN ROUTINE
                00B3    238 TM_CLEANUP::
     FF4A'  30  00B3    239             BSBW      MOD_MSG_PRINT             ; PRINT TEST MODULE END MSG
            05  00B6    240             RSB                                 ; RETURN TO MAIN ROUTINE
```

```
        00B7            .SBTTL  CONDITION SUBROUTINES - SETUP AND CLEANUP
        00B7   ;++
        00B7   ; FUNCTIONAL DESCRIPTION:
        00B7   ;
        00B7   ;                CONDX AND CONDX_CLEANUP ARE SUBROUTINES WHICH ARE EXECUTED
        00B7   ; BEFORE AND AFTER THE VERIFY SUBROUTINE, RESPECTIVELY, WHENEVER A NEW
        00B7   ; CONDITION X VALUE IS SELECTED (SEE FUNCTIONAL DESCRIPTION OF SUCCOMMON
        00B7   ; ROUTINE IN SUCCOMMON.MAR). ANY SETUP FUNCTION PARTICULAR TO THE
        00B7   ; CONDITION X TABLE IS INCLUDED IN THE CONDX SUBROUTINE AND CLEANED
        00B7   ; UP, IF NECESSARY, IN THE CONDX_CLEANUP SUBROUTINE. THIS INCLUDES,
        00B7   ; ESPECIALLY, CODE TO DETECT CONFLICTS AMONG CURRENT ENTRIES IN TWO
        00B7   ; OR MORE CONDITION TABLES. IF A CONFLICT IS DETECTED, A NON-ZERO
        00B7   ; VALUE IS STORED INTO CONFLICT, WHICH CAUSES THE CALLING ROUTINE
        00B7   ; (SUCCOMMON) TO SKIP THE CURRENT ENTRY IN THE CONDITION X TABLE.
        00B7   ;
        00B7   ; CALLING SEQUENCE:
        00B7   ;
        00B7   ;       BSBW CONDX   BSBW CONDX_CLEANUP
        00B7   ;         WHERE X = 1,2,3,4,5
        00B7   ;
        00B7   ; INPUT PARAMETERS:
        00B7   ;
        00B7   ;       CONFLICT = 0
        00B7   ;
        00B7   ; IMPLICIT INPUTS:
        00B7   ;
        00B7   ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
        00B7   ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
        00B7   ;
        00B7   ; OUTPUT PARAMETERS:
        00B7   ;
        00B7   ;       CONFLICT SET TO NON-ZERO IF COND TABLE CONFLICT DETECTED.
        00B7   ;
        00B7   ; IMPLICIT OUTPUTS:
        00B7   ;
        00B7   ;       R2,3,4,5,6 PRESERVED
        00B7   ;
        00B7   ; COMPLETION CODES:
        00B7   ;
        00B7   ;       NONE
        00B7   ;
        00B7   ; SIDE EFFECTS:
        00B7   ;
        00B7   ;       NONE
        00B7   ;
        00B7   ;--
        00B7
        00B7
        00B7
        00B7   COND1::
   05   00B7            RSB                             ; RETURN TO MAIN ROUTINE
        00B8   COND1_CLEANUP::
   05   00B8            RSB                             ; RETURN TO MAIN ROUTINE
        00B9   COND2::
   05   00B9            RSB                             ; RETURN TO MAIN ROUTINE
        00BA   COND2_CLEANUP::
   05   00BA            RSB                             ; RETURN TO MAIN ROUTINE
```

```
        00BB   299 COND3::
    05  00BB   300              RSB                         ; RETURN TO MAIN ROUTINE
        00BC   301 COND3_CLEANUP::
    05  00BC   302              RSB                         ; RETURN TO MAIN ROUTINE
        00BD   303 COND4::
    05  00BD   304              RSB                         ; RETURN TO MAIN ROUTINE
        00BE   305 COND4_CLEANUP::
    05  00BE   306              RSB                         ; RETURN TO MAIN ROUTINE
        00BF   307 COND5::
    05  00BF   308              RSB                         ; RETURN TO MAIN ROUTINE
        00C0   309 COND5_CLEANUP::
    05  00C0   310              RSB                         ; RETURN TO MAIN ROUTINE
```

```
                                    00C1            .SBTTL  FORM_CONDS
                                    00C1      ;++
                                    00C1      ; FUNCTIONAL DESCRIPTION:
                                    00C1      ;
                                    00C1      ;               FORM CONDS FORMATS AND PRINTS INFORMATION ABOUT
                                    00C1      ;  THE CURRENT ELEMENT IN EACH OF THE CONDITION TABLES.
                                    00C1      ;
                                    00C1      ; CALLING SEQUENCE:
                                    00C1      ;
                                    00C1      ;       BSBW FORM_CONDS
                                    00C1      ;
                                    00C1      ; INPUT PARAMETERS:
                                    00C1      ;
                                    00C1      ;       NONE
                                    00C1      ;
                                    00C1      ; IMPLICIT INPUTS:
                                    00C1      ;
                                    00C1      ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
                                    00C1      ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
                                    00C1      ;       FOR X = 1,2,3,4,5 :
                                    00C1      ;               CONDX_T - TITLE TEXT FOR CONDX TABLE
                                    00C1      ;               CONDX_TAB - ELEMENT TEXT FOR CONDX TABLE
                                    00C1      ;               CONDX_C - CONTEXT OF THE CONDX TABLE
                                    00C1      ;               CONDX_E - DATA ELEMENTS OF THE CONDX TABLE
                                    00C1      ;
                                    00C1      ; OUTPUT PARAMETERS:
                                    00C1      ;
                                    00C1      ;       NONE
                                    00C1      ;
                                    00C1      ; IMPLICIT OUTPUTS:
                                    00C1      ;
                                    00C1      ;       NONE
                                    00C1      ;
                                    00C1      ; COMPLETION CODES:
                                    00C1      ;
                                    00C1      ;       NONE
                                    00C1      ;
                                    00C1      ; SIDE EFFECTS:
                                    00C1      ;
                                    00C1      ;       NONE
                                    00C1      ;
                                    00C1      ;--
                                    00C1
                                    00C1
                                    00C1
                                    00C1      FORM_CONDS::
                                    00C1            $FAO_S  MSG1_INP_CTL,FAO_LEN,FAO_DESC,TESTNUM
                                    00E0                                                    ; FORMAT CONDITIONS HEADER MSG
                          FF1D'  30 00E0            BSBW    OUTPUT_MSG                      ; ... AND PRINT IT
                       14    10  91 00E3            CMPB    #COND1_C,#NULL                  ; IS CONDITION 1 NULL ?
                             03  12 00E6            BNEQU   10$                             ; NO -- CONTINUE
                           00D7  31 00E8            BRW     FORM_CONDSX                     ; YES -- SUBROUTINE IS FINISHED
                                    00EB      10$:
   00000000'EF    00000040'EF    DE 00EB            MOVAL   COND1_T,MSG_A                   ; SAVE ADDRESS OF CONDITION 1 TITLE FOR FAO
 00000000'EF    00000048'EF42    D0 00F6            MOVL    COND1_TAB[R2],MSG_B             ; SAVE ADDR OF COND 1 CURR TEXT ELT FOR FAO
            00000000'EF    10    90 0102            MOVB    #CONDT_C,MSG_CTXT               ; SAVE CONDITION 1 CONTEXT FOR FAO
                                    0109            MOV_VAL COND1_C,CONDT_E[R2],MSG_DATA1 ; GIVE COND 1 DATA VALUE TO FAO
```

```
                  FEE8'  30  0115    369           BSBW     WRITE_MSG2                 ; FORMAT AND WRITE CONDITION 1 MSG
              14    04   91  0118    370           CMPB     #COND2_C,#NULL             ; IS CONDITION 2 NULL ?
                    03   12  011B    371           BNEQU    20$                        ; NO -- CONTINUE
                  00A2   31  011D    372           BRW      FORM_CONDSX                ; YES -- SUBROUTINE IS FINISHED
                             0120    373 20$:
  00000000'EF   00000129'EF  DE  0120    374       MOVAL    COND2_T,MSG_A              ; SAVE ADDRESS OF CONDITION 2 TITLE FOR FAO
00000000'EF   00000131'EF43  D0  012B    375       MOVL     COND2_TAB[R3],MSG_B        ; SAVE ADDR OF COND 2 CURR TEXT ELT FOR FAO
           00000000'EF    04  90  0137    376      MOVB     #COND2_C,MSG_CTXT          ; SAVE CONDITION 2 CONTEXT FOR FAO
                             013E    377           MOV_VAL  COND2_C,COND2_E[R3],MSG_DATA1 ; GIVE COND 2 DATA VALUE TO FAO
                  FEB3'  30  014A    378           BSBW     WRITE_MSG2                 ; FORMAT AND WRITE CONDITION 2 MSG
              14    14   91  014D    379           CMPB     #COND3_C,#NULL             ; IS CONDITION 3 NULL ?
                    03   12  0150    380           BNEQU    30$                        ; NO -- CONTINUE
                  006D   31  0152    381           BRW      FORM_CONDSX                ; YES -- SUBROUTINE IS FINISHED
                             0155    382 30$:
  00000000'EF   0000017A'EF  DE  0155    383       MOVAL    COND3_T,MSG_A              ; SAVE ADDRESS OF CONDITION 3 TITLE FOR FAO
00000000'EF   0000017A'EF44  D0  0160    384       MOVL     COND3_TAB[R4],MSG_B        ; SAVE ADDR OF COND 3 CURR TEXT ELT FOR FAO
           00000000'EF    14  90  016C    385      MOVB     #COND3_C,MSG_CTXT          ; SAVE CONDITION 3 CONTEXT FOR FAO
                             0173    386           MOV_VAL  COND3_C,COND3_E[R4],MSG_DATA1 ; GIVE COND 3 DATA VALUE TO FAO
                  FE8A'  30  0173    387           BSBW     WRITE_MSG2                 ; FORMAT AND WRITE CONDITION 3 MSG
              14    14   91  0176    388           CMPB     #COND4_C,#NULL             ; IS CONDITION 4 NULL ?
                    47   13  0179    389           BEQLU    FORM_CONDSX                ; YES -- SUBROUTINE IS FINISHED
  00000000'EF   0000017B'EF  DE  017B    390       MOVAL    COND4_T,MSG_A              ; SAVE ADDRESS OF CONDITION 4 TITLE FOR FAO
00000000'EF   0000017B'EF45  D0  0186    391       MOVL     COND4_TAB[R5],MSG_B        ; SAVE ADDR OF COND 4 CURR TEXT ELT FOR FAO
           00000000'EF    14  90  0192    392      MOVB     #COND4_C,MSG_CTXT          ; SAVE CONDITION 4 CONTEXT FOR FAO
                             0199    393           MOV_VAL  COND4_C,COND4_E[R5],MSG_DATA1 ; GIVE COND 4 DATA VALUE TO FAO
                  FE64'  30  0199    394           BSBW     WRITE_MSG2                 ; FORMAT AND WRITE CONDITION 4 MSG
              14    14   91  019C    395           CMPB     #COND5_C,#NULL             ; IS CONDITION 5 NULL ?
                    21   13  019F    396           BEQLU    FORM_CONDSX                ; YES -- SUBROUTINE IS FINISHED
  00000000'EF   0000017C'EF  DE  01A1    397       MOVAL    COND5_T,MSG_A              ; SAVE ADDRESS OF CONDITION 5 TITLE FOR FAO
00000000'EF   0000017C'EF46  D0  01AC    398       MOVL     COND5_TAB[R6],MSG_B        ; SAVE ADDR OF COND 5 CURR TEXT ELT FOR FAO
           00000000'EF    14  90  01B8    399      MOVB     #COND5_C,MSG_CTXT          ; SAVE CONDITION 5 CONTEXT FOR FAO
                             01BF    400           MOV_VAL  COND5_C,COND5_E[R6],MSG_DATA1 ; GIVE COND 5 DATA VALUE TO FAO
                  FE3E'  30  01BF    401           BSBW     WRITE_MSG2                 ; FORMAT AND WRITE CONDITION 5 MSG
                             01C2    402 FORM_CONDSX:
                         05  01C2    403           RSB                                 ; RETURN TO CALLER
```

```
01C3            .SBTTL  VERIFY
01C3    ;++
01C3    ; FUNCTIONAL DESCRIPTION:
01C3    ;
01C3    ;               VERIFY IS CALLED ONCE FOR EACH COMBINATION OF CONDITION
01C3    ; TABLE VALUES (AS DETERMINED BY THE INDEX REGISTERS R2,3,4,5,6 FOR
01C3    ; COND TABLES 1,2,3,4,5, RESPECTIVELY). VERIFY ESTABLISHES THE CONDITIONS
01C3    ; SPECIFIED BY THE COND TABLES AND ISSUES THE SUBJECT SYSTEM SERVICE.
01C3    ;  THEN, THE SUCCESSFUL OPERATION OF THE SERVICE IS VERIFIED
01C3    ; BY EXAMINING THE STATUS CODE RETURNED, THE VALUES FOR RETURN ARGUMENTS
01C3    ; AND THE FUNCTIONALITY PERFORMED. THE EXAMINATIONS TAKE THE FORM OF
01C3    ; COMPARISONS AGAINST EXPECTED VALUES. ANY FAILING COMPARISON CAUSES AN
01C3    ; ERR_EXIT MACRO TO BE EXECUTED (EITHER DIRECTLY, OR INDIRECTLY,
01C3    ; THROUGH THE SS_CHECK MACRO); ERR_EXIT SETS EFLAG TO NON-ZERO,
01C3    ; PRINTS ERROR MESSAGES AND CAUSES AN IMMEDIATE RSB TO CALLER.
01C3    ; WHEN ERR_EXIT IS EXECUTED, FURTHER CALLS TO VERIFY ARE SUPPRESSED,
01C3    ; AND, AFTER EXECUTING CLEANUP SUBROUTINES, THE IMAGE EXITS.
01C3    ;
01C3    ; CALLING SEQUENCE:
01C3    ;
01C3    ;       BSBW VERIFY
01C3    ;
01C3    ; INPUT PARAMETERS:
01C3    ;
01C3    ;       NONE
01C3    ;
01C3    ; IMPLICIT INPUTS:
01C3    ;
01C3    ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
01C3    ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
01C3    ;       FOR X = 1,2,3,4,5 :
01C3    ;               CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
01C3    ;                 TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
01C3    ;                 ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
01C3    ;                 FOR CONDX_E.
01C3    ;
01C3    ; OUTPUT PARAMETERS:
01C3    ;
01C3    ;       NONE
01C3    ;
01C3    ; IMPLICIT OUTPUTS:
01C3    ;
01C3    ;       VERIFY HAS NO OUTPUT. SINCE ITS PURPOSE IS TO TEST FOR ERRORS,
01C3    ;       IT MERELY RETURNS TO CALLER NORMALLY AFTER THE TESTS, PROVIDING
01C3    ;       ALL WERE SUCCESSFUL; IF AN ERROR IS DISCOVERED, RETURN IS VIA
01C3    ;       AN ERR_EXIT OR SS_CHECK MACRO, BOTH OF WHICH DOCUMENT DETECTED
01C3    ;       ERRORS.
01C3    ;
01C3    ; COMPLETION CODES:
01C3    ;
01C3    ;       EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
01C3    ;
01C3    ; SIDE EFFECTS:
01C3    ;
01C3    ;       SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
01C3    ;       (VIA RSB) IF ERROR ENCOUNTERED.
01C3    ;
```

```
                                      01C3   462 ;--
                                      01C3   463
                                      01C3   464
                                      01C3   465
                                      01C3   466 VERIFY::
                00000000'EF      95   01C3   467          TSTB    CFLAG                     ; SHOULD CONDITIONS BE PRINTED ?
                         03      13   01C9   468          BEQL    5$                        ; NO -- CONTINUE
                       FEF3      30   01CB   469          BSBW    FORM_CONDS                ; YES -- FMT & PRINT ALL CONDS FOR THIS T.C.
                                      01CE   470 5$:
                  04     52      D1   01CE   471          CMPL    R2,#4                     ; 5TH COND 1 ELEMENT ?
                         03      13   01D1   472          BEQL    8$                        ; YES -- ISSUE $GETTIM INSTEAD OF $BINTIM
                       007A      31   01D3   473          BRW     15$                       ; NO -- GO ISSUE $BINTIM
                                      01D6   474 8$:
                                      01D6   475 ;
                                      01D6   476 ; ****** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE ******
                                      01D6   477 ;
                                      01D6   478          $GETTIM_S TIMADR=TIMADR_BTM
           00000000'8F   50      D1   01E3   479          CMPL    R0,#SS$_NORMAL            ; CODE RECEIVED = CODE EXPECTED ?
                         03      12   01EA   480          BNEQU   12$                       ; NO -- PROCESS ERROR
                       016E      31   01EC   481          BRW     30$                       ; YES -- CONTINUE WITH $ASCTIM
                                      01EF   482 12$:
 00000000'EF   00000000'8F       D0   01EF   483          MOVL    #SS$_NORMAL,EXPV          ; NO -- LOAD UP EXPECTED AND ...
           00000000'EF   50      D0   01FA   484          MOVL    R0,RECV                   ; ... RECEIVED VALUES, THEN EXIT
                                      0201   485          ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM GETTIM>
                                      0250   486 15$:
                                      0250   487 ;
                                      0250   488 ; ****** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE ******
                                      0250   489 ;
                                      0250   490          $BINTIM_S TIMBUF=TIMBUF[R2], -
                                      0250   491                  TIMADR=TIMADR_BTM
           00000000'8F   50      D1   0264   492          CMPL    R0,#SS$_NORMAL            ; CODE RECEIVED = CODE EXPECTED ?
                         61      13   026B   493          BEQLU   20$                       ; YES -- CONTINUE
 00000000'EF   00000000'8F       D0   026D   494          MOVL    #SS$_NORMAL,EXPV          ; NO -- LOAD UP EXPECTED AND ...
           00000000'EF   50      D0   0278   495          MOVL    R0,RECV                   ; ... RECEIVED VALUES, THEN EXIT
                                      027F   496          ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM BINTIM>
                                      02CE   497 20$:
                  02     52      D1   02CE   498          CMPL    R2,#2                     ; LOOKING AT CURRENT TIME ?
                         03      15   02D1   499          BLEQ    25$                       ; NO -- COMPARE AGAINST STANDARDS
                       0087      31   02D3   500          BRW     30$                       ; YES -- SKIP COMPARE
                                      02D6   501 25$:
        57   00000097'EF42       7E   02D6   502          MOVAQ   STD_TIMADR_BTM[R2],R7     ; AVOID INDEX MODE IN CMPC
                    0000'8F      BB   02DE   503          PUSHR   #CMPC_SAV                 ; SAVE SOME REGS USED BY CMPC (R2 AND R3)
    67   00000008'EF     08      29   02E2   504          CMPC    #8,TIMADR_BTM,(R7)        ; DID $BINTIM PRODUCE EXPECTED RESULT ?
                    0000'8F      BA   02EA   505          POPR    #CMPC_SAV                 ; RESTORE SOME REGS USED BY CMPC (R2 AND R3)
                         6D      13   02EE   506          BEQLU   30$                       ; YES -- CONTINUE
00000000'EF   00000097'EF42      7D   02F0   507          MOVQ    STD_TIMADR_BTM[R2],EXPV   ; NO -- LOAD UP EXPECTED AND
 00000000'EF   00000008'EF       7D   02FC   508          MOVQ    TIMADR_BTM,RECV           ; ... RECEIVED VALUES, THEN EXIT
                                      0307   509          ERR_EXIT QUAD,<UNEXPECTED VALUE FOR TIMADR ARGUMENT >, -
                                      0307   510                          <FROM $BINTIM>
                                      035D   511 30$:
        00   00000172'EF43       D1   035D   512          CMPL    CVTFLG[R3],#LONG_ASC      ; LONG $ASCTIM OUTPUT INDICATED ?
                         11      13   0365   513          BEQL    33$                       ; YES -- GO GET STD TABLE OF LONG VALUES
        59   000000AF'EF42       7E   0367   514          MOVAQ   STD_TIMBUF_ATMS[R2],R9    ; NO -- GET STD TABLE OF SHORT TIMBUF VALUES
                                      036F   515                                            ; (R9 USED LATER FOR CMPC INSTR)
           00000010'EF   0B      D0   036F   516          MOVL    #11,TIMBUF_ATM            ; ... AND USE A SHORT BUFFER
                         0F      11   0376   517          BRB     37$                       ; GO ISSUE $ASCTIM
                                      0378   518 33$:
```

```
     59  000000C7'EF42    7E  0378    519          MOVAQ   STD_TIMBUF_ATML[R2],R9  ; GET STD TABLE OF LONG TIMBUF VALUES
      00000010'EF    18   D0  0380    520          MOVL    #24,TIMBUF_ATM          ; ... AND USE A LONG BUFFER
                              0387    521 37$:
                              0387    522 ;
                              0387    523 ; ****** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE ******
                              0387    524 ;
                              0387    525          $ASCTIM_S TIMLEN=TIMLEN_ATM,    -
                              0387    526                    TIMBUF=TIMBUF_ATM,    -
                              0387    527                    TIMADR=TIMADR_BTM,    -
                              0387    528                    CVTFLG=CVTFLG[R3]
      00000000'8F    50   D1  03A7    529          CMPL    R0,#SS$_NORMAL          ; CODE RECEIVED = CODE EXPECTED ?
                     61   13  03AE    530          BEQLU   40$                     ; YES -- CONTINUE
00000000'EF   00000000'8F D0  03B0    531          MOVL    #SS$_NORMAL,EXPV        ; NO -- LOAD UP EXPECTED AND ...
      00000000'EF    50   D0  03BB    532          MOVL    R0,RECV                 ; ... RECEIVED VALUES, THEN EXIT
                              03C2    533          ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM ASCTIM>
                              0411    534 40$:
              02     52   D1  0411    535          CMPL    R2,#2                   ; LOOKING AT CURRENT TIME ?
                     03   15  0414    536          BLEQ    45$                     ; NO -- COMPARE AGAINST STANDARDS
                   007B   31  0416    537          BRW     50$                     ; YES -- SKIP COMPARE
                              0419    538 45$:
                0000'8F   BB  0419    539          PUSHR   #CMPC_SAV               ; SAVE R2 & R3 BEFORE CMPC
 00000014'FF    04 B9  69 29  041D    540          CMPC    (R9),@4(R9),@TIMBUF_ATM+4 ; DID $ASCTIM PRODUCE EXPECTED RESULT ?
                0000'8F   BA  0426    541          POPR    #CMPC_SAV               ; RESTORE R2 & R3 AFTER CMPC
                     68   13  042A    542          BEQLU   50$                     ; YES -- GO ON TO $NUMTIM
      00000000'EF    69   7D  042C    543          MOVQ    (R9),EXPV               ; NO -- LOAD UP EXPECTED AND
00000000'EF   00000010'EF 7D  0433    544          MOVQ    TIMBUF_ATM,RECV         ; ... RECEIVED VALUES, THEN EXIT
                              043E    545          ERR_EXIT DESC,<UNEXPECTED VALUE FOR TIMBUF ARGUMENT >, -
                              043E    546                          <FROM $ASCTIM>
                              0494    547 50$:
                              0494    548 ;
                              0494    549 ; ****** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE ******
                              0494    550 ;
                              0494    551          $NUMTIM_S TIMBUF=TIMBUF_NMT, -
                              0494    552                    TIMADR=TIMADR_BTM
      00000000'8F    50   D1  04A7    553          CMPL    R0,#SS$_NORMAL          ; CODE RECEIVED = CODE EXPECTED ?
                     61   13  04AE    554          BEQLU   60$                     ; YES -- CONTINUE
00000000'EF   00000000'8F D0  04B0    555          MOVL    #SS$_NORMAL,EXPV        ; NO -- LOAD UP EXPECTED AND ...
      00000000'EF    50   D0  04BB    556          MOVL    R0,RECV                 ; ... RECEIVED VALUES, THEN EXIT
                              04C2    557          ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM NUMTIM>
                              0511    558 60$:
              02     52   D1  0511    559          CMPL    R2,#2                   ; LOOKING AT CURRENT TIME ?
                     03   15  0514    560          BLEQ    65$                     ; NO -- COMPARE AGAINST STANDARDS
                   017C   31  0516    561          BRW     VERIFYX                 ; YES -- SKIP COMPARE
                              0519    562 65$:
     57  0000011A'EF42    D0  0519    563          MOVL    STD_TIMBUF_NMT[R2],R7   ; GET READY FOR ...
      58    00000032'EF   DE  0521    564          MOVAL   TIMBUF_NMT,R8           ; ... SERIES OF COMPARES
              68     67   D1  0528    565          CMPL    (R7),(R8)               ; DO WORDS 1 & 2 OF TIMBUF MATCH STD ?
                     72   13  052B    566          BEQLU   70$                     ; YES -- GO LOOK AT MORE OF TIMBUF
      00000000'EF    67   D0  052D    567          MOVL    (R7),EXPV               ; NO -- LOAD UP EXPECTED AND
      00000000'EF    68   D0  0534    568          MOVL    (R8),RECV               ; ... RECEIVED VALUES, THEN EXIT
                              053B    569          ERR_EXIT LONG,<UNEXPECTED VALUE FOR TIMBUF ARGUMENT >, -
                              053B    570                          <(WORDS 1 & 2) FROM $NUMTIM>
                              059F    571 70$:
        04 A8     04 A7   D1  059F    572          CMPL    4(R7),4(R8)             ; DO WORDS 3 & 4 OF TIMBUF MATCH STD ?
                     74   13  05A4    573          BEQLU   80$                     ; YES -- GO LOOK AT MORE OF TIMBUF
  00000000'EF     04 A7   D0  05A6    574          MOVL    4(R7),EXPV              ; NO -- LOAD UP EXPECTED AND
  00000000'EF     04 A8   D0  05AE    575          MOVL    4(R8),RECV              ; ... RECEIVED VALUES, THEN EXIT
```

```
                            05B6    576             ERR_EXIT LONG,<UNEXPECTED VALUE FOR TIMBUF ARGUMENT >, -
                            05B6    577                           <(WORDS 3 & 4) FROM $NUMTIM>
                            061A    578 80$:
        08 A8    08 A7  D1  061A    579             CMPL    8(R7),8(R8)            ; DO WORDS 5 & 6 OF TIMBUF MATCH STD ?
                    74  13  061F    580             BEQLU   VERIFYX                ; YES -- DON'T LOOK AT WORD 7 ...
                            0621    581                                            ; ... BECAUSE OF ROUNDING ERROR
  00000000'EF    08 A7  D0  0621    582             MOVL    8(R7),EXPV             ; NO -- LOAD UP EXPECTED AND
  00000000'EF    08 A8  D0  0629    583             MOVL    8(R8),RECV             ; ... RECEIVED VALUES, THEN EXIT
                            0631    584             ERR_EXIT LONG,<UNEXPECTED VALUE FOR TIMBUF ARGUMENT >, -
                            0631    585                           <(WORDS 5 & 6) FROM $NUMTIM>
                            0695    586 VERIFYX:
                        05  0695    587             RSB                            ; RETURN TO CALLER
```

```
       0696          .SBTTL  VFY_CLEANUP
       0696    ;++
       0696    ; FUNCTIONAL DESCRIPTION:
       0696    ;
       0696    ;         VFY_CLEANUP EXECUTES SYSTEM SERVICES TO UNDO THE
       0696    ; EFFECT OF THOSE ISSUED IN THE VERIFY SUBROUTINE. VFY_CLEANUP MUST
       0696    ; ASSUME THAT VERIFY MAY NOT HAVE EXECUTED IN ITS ENTIRETY (IF AN
       0696    ; ERROR IS FOUND). ALSO, VFY_CLEANUP MAY ISSUE SS_CHECK OR ERR_EXIT
       0696    ; ONLY AFTER PERFORMING ALL OF ITS CLEANUP OPERATIONS; THIS IS REQUIRED
       0696    ; IN THE EVENT THAT VFY_CLEANUP IS CALLED DURING ERROR PROCESSING,
       0696    ; WHEN PERFORMING THE REQUIRED CLEANUP IS MORE IMPORTANT THAN
       0696    ; POSSIBLY DISCOVERING A SECOND ERROR.
       0696    ;
       0696    ; CALLING SEQUENCE:
       0696    ;
       0696    ;       BSBW VFY_CLEANUP
       0696    ;
       0696    ; INPUT PARAMETERS:
       0696    ;
       0696    ;       NONE
       0696    ;
       0696    ; IMPLICIT INPUTS:
       0696    ;
       0696    ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
       0696    ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
       0696    ;       FOR X = 1,2,3,4,5 :
       0696    ;               CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
       0696    ;                 TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
       0696    ;                 ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
       0696    ;                 FOR CONDX_E.
       0696    ;
       0696    ; OUTPUT PARAMETERS:
       0696    ;
       0696    ;       NONE
       0696    ;
       0696    ; IMPLICIT OUTPUTS:
       0696    ;
       0696    ;       NONE
       0696    ;
       0696    ; COMPLETION CODES:
       0696    ;
       0696    ;       EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
       0696    ;
       0696    ; SIDE EFFECTS:
       0696    ;
       0696    ;       SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
       0696    ;       (VIA RSB) IF ERROR ENCOUNTERED.
       0696    ;
       0696    ;--
       0696
       0696
       0696
       0696    VFY_CLEANUP::
  05   0696            RSB                             ; RETURN TO CALLER
       0697            .END
```

```
$$$$                    = 0000063B R      04    EXPV                    ********    X   04
$$$CHARS                = 0000003F              FAO_DESC                ********    X   04
$$$CHARS1               = 0000001C              FAO_LEN                 ********    X   04
$$$CHARS2               = 0000001B              FORM_CONDS                000000C1 RG     04
$$$CHARS3               = 00000000              FORM_CONDSX               000001C2 R      04
$$$CHARS4               = 00000000              LONG                    = 00000004  G
$$$CHARS5               = 00000000              LONG_ASC                = 00000000
$$$COND_A               = 00000001              MOD_MSG_CODE              ********    X   04
$$$STRINGS              = 00000001              MOD_MSG_PRINT             ********    X   04
$$$STRINGS2             = 00000005              MSG1_INP_CTL              00000019 R      02
$$T2                    = 00000004              MSG3_ERR_CTL              00000039 RG     02
BYTE                    = 00000001  G           MSG_A                     ********    X   04
C1_ELT1                   00000051 R      02    MSG_B                     ********    X   04
C1_ELT2                   00000068 R      02    MSG_CTXT                  ********    X   04
C1_ELT3                   00000080 R      02    MSG_DATA1                 ********    X   04
C1_ELT4                   00000095 R      02    NOTARG                  = 00000000  G
CFLAG                     ********    X   04    NULL                    = 00000014  G
CHMRTN                    ********    X   04    OUTPUT_MSG                ********    X   04
CHM_CONT                  ********    X   04    PCV                       ********    X   04
CMPC_SAV                  ********    X   04    PHD$Q_PRIVMSK           = 00000000
COMP_SC                   ********    X   04    PRIVMASK                  00000000 R      03
COND1                     000000B7 RG     04    PRIV_ARGS               = 00000002
COND1_C                 = 00000010              PROCESS_ERR               ********    X   04
COND1_CLEANUP             000000B8 RG     04    QUAD                    = 00000008  G
COND1_E                   00000101 R      03    RECV                      ********    X   04
COND1_H                   00000047 RG     03    REST_REGS                 ********    X   04
COND1_T                   00000040 R      03    SAVE_REGS                 ********    X   04
COND1_TAB                 00000048 R      03    SHORT_ASC               = 00000001
COND2                     000000B9 RG     04    SS$_NORMAL                ********    X   04
COND2_C                 = 00000004              STD_TIMADR_BTM            00000097 R      02
COND2_CLEANUP             000000BA RG     04    STD_TIMBUF_ATML           000000C7 R      02
COND2_E                   00000172 R      03    STD_TIMBUF_ATMS           000000AF R      02
COND2_H                   00000130 RG     03    STD_TIMBUF_NMT            0000011A R      02
COND2_T                   00000129 R      03    SUCCESS                   ********    X   04
COND2_TAB                 00000131 R      03    SYS$ASCTIM                ********   GX   04
COND3                     000000BB RG     04    SYS$BINTIM                ********   GX   04
COND3_C                 = 00000014              SYS$CMKRNL                ********   GX   04
COND3_CLEANUP             000000BC RG     04    SYS$FAO                   ********    X   04
COND3_H                   0000017A RG     03    SYS$GETTIM                ********   GX   04
COND3_T                   0000017A R      03    SYS$NUMTIM                ********   GX   04
COND3_TAB                 0000017A R      03    SYS$SETPRN                ********   GX   04
COND4                     000000BD RG     04    SYS$SETPRV                ********   GX   04
COND4_C                 = 00000014              S_T_A_DATA                000000DF R      02
COND4_CLEANUP             000000BE RG     04    S_T_N_DATA                00000126 R      02
COND4_H                   0000017B RG     03    TESTNUM                   ********    X   04
COND4_T                   0000017B R      03    TEST_MOD_NAME             00000000 RG     02
COND4_TAB                 0000017B R      03    TEST_MOD_NAME_D           00000009 R      02
COND5                     000000BF RG     04    TEST_MOD_SUCC             ********    X   04
COND5_C                 = 00000014              TIMADR_BTM                00000008 R      03
COND5_CLEANUP             000000C0 RG     04    TIMBUF                    00000101 R      03
COND5_H                   0000017C RG     03    TIMBUF_ATM                00000010 R      03
COND5_T                   0000017C R      03    TIMBUF_NMT                00000032 R      03
COND5_TAB                 0000017C R      03    TIMLEN_ATM                00000030 R      03
CTL$GL_PHD                ********    X   04    TMD_ADDR                  ********    X   04
CVTFLG                    00000172 R      03    TM_CLEANUP                000000B3 RG     04
DESC                    = 00000010  G           TM_SETUP                  00000000 RG     04
EFLAG                     ********    X   04    VERIFY                    000001C3 RG     04
```

```
                                                                 M 9
SATSSS60                        SATS SYST SRV TESTS  TIME SERVS (SUCC S. 16-SEP-1984 00:59:14  VAX/VMS Macro V04-00          Page  19
Symbol table                                                             5-SEP-1984 04:32:43  [UETPSY.SRC]SATSSS60.MAR;1          (1)

VERIFYX                         00000695 R      04
VFY_CLEANUP                     00000696 RG     04
WORD                          = 00000002  G
WRITE_MSG2                      ********   X    04

                                                +-----------------+
                                                ! Psect synopsis !
                                                +-----------------+

PSECT name                      Allocation          PSECT No.  Attributes
----------                      ----------          ---------  ----------
.  ABS  .                       00000000  (     0.)  00 (  0.)  NOPIC    USR    CON    ABS    LCL NOSHR NOEXE NORD   NOWRT NOVEC BYTE
$ABS$                           00000000  (     0.)  01 (  1.)  NOPIC    USR    CON    ABS    LCL NOSHR   EXE   RD     WRT NOVEC BYTE
RODATA                          00000150  (   336.)  02 (  2.)  NOPIC    USR    CON    REL    LCL NOSHR NOEXE   RD   NOWRT NOVEC LONG
RWDATA                          0000017D  (   381.)  03 (  3.)  NOPIC    USR    CON    REL    LCL NOSHR NOEXE   RD     WRT NOVEC LONG
SATSSS60                        00000697  (  1687.)  04 (  4.)  NOPIC    USR    CON    REL    LCL NOSHR   EXE   RD     WRT NOVEC BYTE

                                             +------------------------+
                                             ! Performance indicators !
                                             +------------------------+

Phase                        Page faults    CPU Time       Elapsed Time
-----                        -----------    --------       ------------
Initialization                        35    00:00:00.08    00:00:00.42
Command processing                   133    00:00:00.69    00:00:01.94
Pass 1                               248    00:00:06.94    00:00:14.48
Symbol table sort                      0    00:00:00.49    00:00:00.49
Pass 2                               135    00:00:01.95    00:00:03.33
Symbol table output                   15    00:00:00.10    00:00:00.10
Psect synopsis output                  2    00:00:00.02    00:00:00.02
Cross-reference output                 0    00:00:00.00    00:00:00.00
Assembler run totals                 570    00:00:10.27    00:00:20.79

The working set limit was 1500 pages.
37385 bytes (74 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 312 non-local and 39 local symbols.
643 source lines were read in Pass 1, producing 25 object records in Pass 2.
35 pages of virtual memory were used to define 26 macros.

                                            +--------------------------+
                                            ! Macro library statistics !
                                            +--------------------------+

Macro library name                           Macros defined
------------------                           --------------
_$255$DUA28:[SHRLIB]UETP.MLB;1                           9
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                           1
_$255$DUA28:[SYSLIB]STARLET.MLB;2                       13
TOTALS (all libraries)                                  23

611 GETS were required to define 23 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:SATSSS60/OBJ=OBJ$:SATSSS60 MSRC$:SATSSS60/UPDATE=(ENH$:SATSSS60)+EXECML$/LIB+SHRLIB$:UETP/LIB
```

0424 AH-BT13A-SE
VAX/VMS V4.0

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